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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,303	09/25/2006	Jonas Graphenius	495.1106USN	1779

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FASTH LAW OFFICES (ROLF FASTH)
26 PINECREST PLAZA, SUITE 2
SOUTHERN PINES, NC 28387-4301

EXAMINER

DAVID, MICHAEL D

ART UNIT	PAPER NUMBER
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3641

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06/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,303	Applicant(s) GRAPHENIUS, JONAS	
	Examiner MICHAEL D. DAVID	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/8/2007 and 1/8/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 1/8/2007 has been considered by the examiner.

Specification

The disclosure is objected to because of the following informalities: On page 2 line 33 it appears "page" should be removed or perhaps it should be replaced by "part". Examiner notes that this is not an exhaustive list and it is suggested that the applicant carefully review entire application to make appropriate corrections.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: On page 4, line 24 "polymeric layer 90" is recited as being shown in Fig. 4. It appears in Fig. 4 that there is a lead line at the bottom of the figure but no reference sign is shown. Examiner will assume this should be labeled "90" but appropriate correction is required. Examiner notes that this is not an exhaustive list and it is suggested that the applicant carefully review entire application to make appropriate corrections. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 1 is objected to because of the following informalities: In line 10 it appears that the words "high performance fiber" should be inserted before the word "layers" otherwise it would be unclear which "layers" applicant is referring to in this line. Claim 6 is objected to because it appears to be grammatically incorrect. Perhaps the wording should be changed to "transversely spreading out the". Claim 10 is also objected to because in the last line it recites "the layer" and "the layer" sticking to the bullet. It is reciting "the layer" twice but it is unclear which layer applicant is claiming. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-7, and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Morgan (US Patent No. 4090005).

Regarding claim 1, Morgan discloses a method of receiving a bullet (action of a bullet on the material – col. 5 line 22; protective armor - abstract), comprising: providing a plate structure (fig. 2) having an airtight enclosure (airtight bag 15 – col. 2 line 42; fig. 2) enclosing high performance fiber layers (11, 16, 20 – fig. 2; col. 2 lines 50-55), a hard layer (high tension pneumatic barrier 12 – fig. 2; examiner considers 12 to meet the recited limitation of a “hard layer” since a high tension barrier is considered to be hard relative to something such as a soft tension barrier), a textile layer (13, 18, 26 – fig. 2; woven glass fibers – col. 4 line 31-33) having openings defined therein and a semi-solid layer (bonding agent is a flexible thermoplastic material, such as, a polyester, polyurethane, or polyethylene – col. 3 line 33-35; plastic films which are polyethylene, nylon, polycarbonate, or polyurethane – col. 4 line 10; examiner considers these materials especially polyurethane to meet the recited limitation of “semi-solid” since this is known to be a flexible material with characteristics similar to rubber, gel, or bitumen); a bullet penetrating through the airtight enclosure (15); increasing a pressure and expanding a volume inside the airtight enclosure (since 15 is an airtight enclosure this would inherently occur when a bullet penetrates the airtight enclosure); the increased pressure and volume separating the high performance layers from the hard layer and the textile layer from the hard layer (same process of panels/layers separating from one another when bullet penetrates is disclosed in col. 5 and 6); the hard layer (12)

deforming the bullet (12 will deform the bullet to an extent; "bullet was completely flattened", massive deformation of bullet" - col. 6 line 51 and 61); the textile layer (13, 18, 26) attaching to the bullet to follow the bullet (since 26 is made of a flexible material such as woven glass fibers it will inherently attach to the bullet - col. 4 line 31-33); and the semi-solid layer sticking to the bullet (since the semi-solid layer of Morgan is a similar material to that claimed by applicant, it will inherently stick to the bullet).

Regarding claim 2, Morgan discloses wherein the method further comprises inserting the plate structure into a pocket of a vest (fig. 3 shows the stacks/panels making a front pocket and a rear pocket of a vest; also the airtight waterproof bags 15 can be considered pockets).

Regarding claim 4, Morgan discloses wherein the method further comprises the increased pressure expanding the enclosure to create room between the layers (since there are natural airspaces 21 between the layers and since the panels are in an airtight enclosure, this would naturally occur as a bullet penetrates the airtight enclosure - col. 1 line 53; sheets are stacked loosely together - col. 1 line 38; also see claim 1 above).

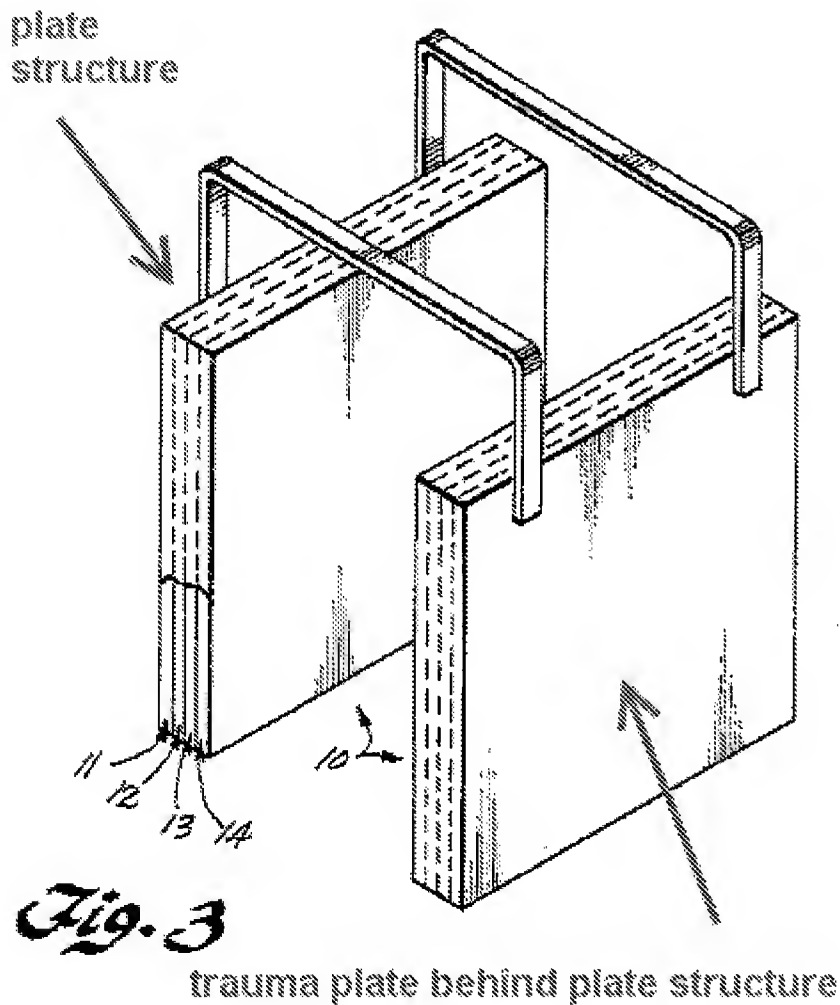
Regarding claim 5, Morgan discloses wherein the method further comprises providing the plate structure with a polymeric layer (tensile net barrier layer 11 can be considered a polymeric layer since it is made of polymers such as Nylon – col. 2 line 58) having a plurality of air-bubbles (air spaces 21 are considered to meet the recited limitation of "air-bubbles" since air bubbles are spaces of air and perform the same function – col. 2 line 53).

Regarding claim 6, Morgan discloses the method according to claim 5 wherein the method further comprises the polymeric layer transversely spreading out penetration energy of the bullet. (col. 5 lines 44-55).

Regarding claim 7, Morgan discloses the method of claim 1 wherein the method further comprises placing a trauma plate behind the plate structure (see fig. 3 below).

Regarding claim 9, see rejection set forth above in claim 1.

Regarding claim 10, Morgan discloses wherein the method further comprises providing a second textile layer and a second semi-solid layer (fig. 3 shows two of the same panels/stacks, one being in front of the person and one being in the back. since there two stacks/panels are identical, the second stack/panel has a second textile layer and second semi-solid layer). See claim 1 rejection above.



-Modified figure reproduced from Morgan (US Patent 4090005)-

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan (US Patent No. 4090005) in view of Strum (US Patent No. 7266850 B1).

Morgan discloses the method according to claim 1 as set forth above, except he does not explicitly disclose wherein the method further comprises attaching a side plate to a lower edge of the vest. However, Strum discloses within the same field of endeavor (armor vests), an armor vest that has a side plate attached to a lower edge of the vest (100 or 708 - fig. 7) in order to protect other portions of the user's body such as the leg. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the armor vest of Morgan with the additional side armor plates similar to that of Strum's vest in order to protect other portions of the user's body.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan (US Patent No. 4090005) in view of Ost (US Patent No. 6029270).

Morgan discloses the method according to claim 1 as set forth above, except he does not explicitly disclose wherein the method further comprises removably attaching a

gas mask bag on a rear section of the vest. However, Ost discloses within the same field of endeavor (bullet proof vests/armor), a bullet proof vest which has bags/pockets (40—fig. 2) removably attached (“pockets 40 may be of the detachable type” – col. 7 line 45) on the rear side of the vest in order to provide convenience for the user to store things in them such as gas masks and to allow the “user to modify the carrying capacity of the vest easily and without having to change garments or carry extra jackets” (col. 7 line 45-47). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the armor vest of Morgan with an armor vest having pockets/bags attached to the rear similar to that of Ost's in order to provide convenience for the user to store things in them such as a gas mask.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art of record discloses various bullet proof vests and armor structures.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. David whose telephone number is 571-270-3737. The examiner can normally be reached on Monday-Friday, 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MDD/
06/06/2008

/Michael J. Carone/
Supervisory Patent Examiner,
Art Unit 3641